METHOD FOR TREATING AN OPTICAL FIBER PREFORM WITH DEUTERIUM

Abstract of the Disclosure

A method of forming an optical fiber preform that includes providing a consolidated glass preform, depositing a layer of silica soot onto the consolidated glass preform to form a composite preform having a consolidated glass portion and a silica soot portion, and exposing the composite preform to an atmosphere containing a concentration of a deuterium compound for a time and at a temperature sufficient to cause the deuterium compound to penetrate the consolidated glass portion without pervading the entire glass portion. Preferably, the deuterium compound penetrates the glass portion to a desired depth.